WE CLAIM:

1. A printhead assembly which comprises

an elongate channel member having a floor and a pair of opposed side walls, the elongate channel member being of a metal having thermal expansion properties that are similar to thermal expansion properties of silicon; and

at least one printhead module positioned in the support structure, along a length of the support structure, the, or each, printhead module comprising

an elongate ink supply assembly that is positioned in the channel, the ink supply assembly being configured to receive a supply of ink and to provide a plurality of ink flow paths interposed between the supply of ink and a plurality of outlet openings defined by the ink supply assembly; and

an elongate printhead chip that is mounted on the ink supply assembly to be fed with ink from the ink supply assembly.

2. A printhead assembly as claimed in claim 1, in which the elongate channel is of a nickel iron alloy.

3. A printhead assembly as claimed in claim 2, in which the elongate channel is a 36% nickel iron alloy.

4. A printhead assembly as claimed in claim 1, which includes a number of ink printhead modules positioned in the channel member such that the ink supply assemblies are positioned end-to-end in the channel member and the printhead chips define an array that spans a print medium, in use.

5. A printhead assembly as claimed in claim 4, in which the elongate ink supply assembly of each module includes an ink feed member that is positioned on the floor of the channel member and defines a number of ink channels, extending longitudinally with respect to the channel member and in fluid communication with an ink supply and a plurality of outlet openings in fluid communication with respective ink channels from which ink can be fed.

6. A printhead assembly as claimed in claim 5, in which an ink delivery assembly is positioned on each ink feed member, each ink delivery assembly defining a mounting formation to permit the printhead chip to be mounted on the ink delivery system, a plurality of ink inlets that are in fluid communication with the outlet openings of the ink feed member, a plurality of exit holes and tortuous ink flow paths from each ink inlet to a number of respective exit holes, each printhead chip incorporating a plurality of nozzle arrangements that extend along a length of the chip, the printhead chip being positioned so that the ink can be fed from the exit holes to the printhead chip.

7. A printhead assembly as claimed in claim 6, in which each ink feed member is in the form of an extrusion of an elastomeric material, the channels extending longitudinally in the extrusion and the outlet openings being holes defined in a surface of the extrusion to be in fluid communication with respective ink channels.

8. A printhead assembly as claimed in claim 6, in which each ink delivery assembly includes a pair of micro-moldings that are positioned so that a lower micro-molding is interposed between an upper micro-molding and the ink feed member, the lower micro-molding defining a plurality of ink chambers in fluid communication with respective outlet openings of the ink feed member, via the ink inlets, and the upper micro-molding defining the exit holes in fluid communication with the ink chambers.